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CR-141101

Title of Investigation: Design Data Collection with Skylab/EREP Microwave Instrument S-193

Title of Report: Design Data Collection with Skylab/EREP Microwave Instrument S-193

RSL Monthly Letter Progress Report #12

September, 1974

NASA Contract NAS 9-13331

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Prepared for:

Principal Investigations Management Office
Technical Monitor: Mr. Larry B. York
NASA Lyndon B. Johnson Space Center
Houston, Texas 77058

Prepared by:

Arun Sobti, Project Engineer
University of Kansas Center for Research, Inc.
Remote Sensing Laboratory
Lawrence, Kansas 66045

Type of Report: Monthly Letter Progress Report

(E75-10070) DESIGN DATA COLLECTION WITH
SKYLAB/EREP MICROWAVE INSTRUMENT S-193
Monthly Letter Progress Report No. 12,
Sep. 1974 (Kansas Univ. Center for
Research, Inc.) 4 p HC \$3.25 CSCL 05B

N75-14189

Unclas
G3/43 00070

DESIGN DATA COLLECTION WITH
SKYLAB/EREP MICROWAVE INSTRUMENT S-193

Richard K. Moore, Principal Investigator
Fawwaz T. Ulaby, Co-Investigator

Arun Sobti
Project Engineer

John C. Barr, Evan Davison, Chia Sung
Saad Ulaby, and Tom Burton
Research Assistants

Remote Sensing Laboratory
Center for Research, Inc.
University of Kansas
Lawrence, Kansas 66045

Larry York, Technical Monitor
Principal Investigations
Management Office
Lyndon B. Johnson Space Center
Houston, Texas 77058

EREP No. 549-M, March 28, 1973 to September 30, 1974

Contract Number NAS-9-13331

DESIGN DATA COLLECTION WITH SKYLAB/EREP MICROWAVE INSTRUMENT S-193

The University of Kansas, Center for Research, Inc. reports the following work performed during the period 1 September 1974 to 30 September 1974.

1.0 CONTINUING STUDIES

1.1 (Task 2.1.1.2, 2.1.3.1, 2.1.3.2) Development of Catalogue for Radiometer Temperature Measurements Performed to Date.

This task was temporarily postponed due to excessive activity in the other tasks.

1.2 (Task 2.1.3.3) Study of Effects of Atmosphere Upon S193 Rad/Scat Measurements.

A standardized scheme to obtain climatological data in a form satisfactory for computation of atmospheric effects is presently being sought. The scheme that is currently being used is adequate for present purposes but involves greater manpower than is warranted. For example, daily temperatures (for pertinent days and sites) are obtained from monthly weather reports and punched by hand to feed into the computer.

1.3 (Task 2.1.1.5, 2.1.3.1, 2.1.3.2) Ground Truth Collection and Data Catalogue.

This comprises the brunt of the effort for this month. Emphasis on systematizing the cataloging procedure has hampered the pace for the current period but should greatly compensate for this slow pace in the very near future. Some of the significant accomplishments are enumerated below.

a). Decommutation of Data

Rather than decommutate data only on an 'as need' basis, the entire data-base is being decommutated and put on one universal data format. This task is further complicated by the fact that data has to be screened prior to being introduced into the data-base to be used for this project.

b). Specific Site Studies

A significant amount of effort has been spent on specific site studies for the two sites under careful examination - Utah and Texas. Progress in these studies is satisfactory. Preliminary findings will be reported next month.

c). Computer Data Analysis

Computations of general statistics including production of histograms of the various sets and subsets of S-193 data are being performed. Progress is satisfactory.

d). S-193 Footprint Analysis

Cataloging of land use, climatological data and other relevant information on a "by footprint" basis is continuing. This is a slow process but a certain amount of this is essential to help interpret the computer aided analysis.

2.0 REPORTS COMPLETED

No reports were completed this month.

3.0 SPECIAL ANALYSES

No special analyses were requested of us this month.

4.0 DATA RECEIVED

No data was received in September.

5.0 COMMENT

We have been informed that NASA has reprocessed some SL2 S193 data. We are awaiting receipt of this data with some concern, because of the subject label having been tagged by NASA onto data received previously.

AS:rh